UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,102	10/31/2003	Shuichi Takagi	50T5441.01	2678

27774 7590 07/08/2009

MAYER & WILLIAMS PC
251 NORTH AVENUE WEST
2ND FLOOR
WESTFIELD, NJ 07090

EXAMINER	
LE, MIRANDA	
ART UNIT	PAPER NUMBER
2159	
MAIL DATE	DELIVERY MODE
07/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/699,102	TAKAGI ET AL.	
	Examiner	Art Unit	
	MIRANDA LE	2159	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 May 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 24-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 24-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This communication is responsive to Amendment, filed 05/11/2009.

Claims 1-14, 24-27 are pending in this application. This action is made Final.

The objection to the specification (claim objection) of the invention has been withdrawn in view of the amendment.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-8, 10-14, 24, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carmel et al. (US Patent No. 6,389,473), in view of Miller et al. (US Patent No. 5,920,701), and further in view of Takeuchi et al. (US Patent No. 6,321,260).

As to claims 1, 14, Carmel teaches a computer-implemented method/computer readable storage medium for synchronously transferring an amount of local data from a local data storage *(i.e. computer 34, Figs. 2, 4; the transmitting computer, col. 2, lines 51-59)* medium to a remote data storage *(i.e. Server 36, computers 30, Figs. 2, 4; clients, col. 2, lines 51-50)* medium via a communications link having an available bandwidth *(i.e. Preferably, computer 34 monitors the rate of data being transmitted over each of links 60, 62, 64, etc., and allocates files 42, 44, 46, 48, etc., according to the data rates. The sizes of the files may be varied by adjusting slice durations T.sub.1, T.sub.2, T.sub.3, etc., and a relatively greater volume of data may be transmitted through links exhibiting relatively greater data rates. The bandwidth open for transmission between computer 34 and server 36 is effectively roughly equal to a sum of the bandwidths of the plurality of open links. The number of links that are actually opened between computer 34 and server 36 may be less than or greater than the five links shown in the example of FIG. 4, depending on the available data rates of the open links, compared with the rate of data in stream 40. Preferably at least two links are opened, so that preparation and transmission of files 42, 44, 46, 48, etc., may be toggled back and forth between the links. A similar technique is preferably employed by clients 30, col. 9, lines 31-48)*, the local data storage

medium associated with a local computer system having a local processor sequentially responsive to a plurality of local computer programs, the remote data storage medium associated with a remote computer system non-redundant of the local computer system and having a remote processor, the method comprising:

evaluating local user *(i.e. transmitting computer, col. 2, lines 51-59)* conditions *(i.e. the rate of data being transmitted over each of links 60, 62, 64, col. 9, lines 31-48; link 60 will have timed out, col. 12, lines 48-59)* associated with transfer of the local data *(i.e. the transmitting computer and the clients monitor the uploading and downloading of data to and from the server, respectively, in order to determine the amount of time required to convey each slice and to verify that the slices are conveyed at a sufficient rate. When the data stream comprises multimedia data, the data rate should be generally equal to or faster than the rate at which the data are generated at the transmitting computer, col. 2, lines 51-59);*

based on the currently available bandwidth *(i.e. data rate, col. 5, lines 3-14; the available data rates of the open links, col. 9, lines 31-48)* and the amount of local data *(i.e. The sizes of the files, col. 9, lines 31-49),* approximating a transfer time *(i.e. On the other hand, if it is determined that the upload time for file 42 (or a subsequent file) is substantially shorter than duration T.sub.1, the duration of subsequent files may be extended, and/or the compression ratio may be decreased, so as to take better advantage of the available bandwidth, col. 12, lines 14-17)* for the local data *(i.e. the transmitting computer opens a plurality of*

links between the transmitting computer and the server, each link characterized by a respective data rate, and transmits different ones of the sequence of files over different ones of the plurality of links. Most preferably, the transmitting computer opens the plurality of links such that the data rates of the links taken together are sufficient to upload the sequence at the upload rate generally equal to the data rate. Further preferably, the transmitting computer monitors the data rates of the links and opens a new link in place of one of the links whose data rate is lower than a predetermined level, col. 5, lines 3-14);

determining a status of the local processor *(i.e. Preferably, computer 34 monitors the rate of data being transmitted over each of links 60, 62, 64, etc., and allocates files 42, 44, 46, 48, etc., according to the data rates. The sizes of the files may be varied by adjusting slice durations T1, T2, T3, etc., and a relatively greater volume of data may be transmitted through links exhibiting relatively greater data rates, col. 9, lines 31-49)*, wherein the determining step includes determining if the local processor has reduced activity *(i.e. link 60 will have timed out, col. 12, lines 48-59)* or is idle *(i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be*

preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58);

based on the approximated transfer time *(i.e. the time required to upload file 42 is measured and compared to T.sub.1, at the same time as file 44 (slice 2) is being encoded and prepared, col. 11, lines 65 to col. 12, line 12)*, the local user conditions, and the status of the local processor, selecting a time of day at which *(i.e. stream in real time, col. 2, line 60 to col. 3, line 5)* to transmit the local data to the remote data storage medium *(i.e. Computer 34 monitors the time codes as file 40 is transmitted, and clients 30 similarly monitor the time codes as the file is received, in order to ensure that the transmission or reception is "keeping up" with the input of the data to the computer. In the event that a lag is detected, steps are taken to increase the data transmission or reception rate, as described further hereinbelow. For example, as shown in FIG. 3A, time intervals T1, T2, T3, etc., are not all equal, but rather are adjusted by computer 34 in response to the transmission rate. Alternatively or additionally, the compression level of the data is varied, as is likewise described below, so as to adjust the data streaming rate to the available bandwidth over one or more channels between computer 34 and server 36, and/or between server 36 and client 30, col. 7, lines 35-49)*; and

automatically arranging transfer of the local data to the remote data storage medium via the communications link at the selected time *(i.e. Computer 34 monitors the time codes as file 40 is transmitted, and clients 30 similarly monitor the time codes as the file is received, in order to ensure that the transmission or reception is "keeping up" with the input of the data to the*

computer. In the event that a lag is detected, steps are taken to increase the data transmission or reception rate, as described further hereinbelow. For example, as shown in FIG. 3A, time intervals T.sub.1, T.sub.2, T.sub.3, etc., are not all equal, but rather are adjusted by computer 34 in response to the transmission rate. Alternatively or additionally, the compression level of the data is varied, as is likewise described below, so as to adjust the data streaming rate to the available bandwidth over one or more channels between computer 34 and server 36, and/or between server 36 and client 30, col. 7, lines 35-49).

Carmel implicitly teaches evaluating local user conditions associated with transfer of the local data as The client or the server monitors the data transfer rate of a data link opened therebetween and selects the level that is appropriate to the link bandwidth *(i.e. In other preferred embodiments, the slices are provided by the server at multiple resolution or quality levels. Each such level has a different degree of data compression, and thus corresponds to a different data bandwidth requirement. The client or the server monitors the data transfer rate of a data link opened therebetween and selects the level that is appropriate to the link bandwidth. If the monitored data transfer rate changes during transmission, the quality level is preferably reselected accordingly, col. 3, lines 5-13).*

Carmel does not state the term “evaluating local user conditions associated with transfer of the local data”.

Takeuchi teaches this limitation *(i.e. In each node, there is an application (401) for setting various parameters to be used to send and receive continuous media data and allocate resources, col. 6, lines 25-28)*.

It would have been obvious to one of ordinary skill of the art having the teaching of Carmel and Takeuchi at the time the invention was made to modify the system of Carmel to include the limitations as taught by Takeuchi. One of ordinary skill in the art would be motivated to make this combination in order to set various parameters to be used to send and receive continuous media data in view of Takeuchi, as doing so would give the added benefit of achieving a data communication method for satisfying a transfer rate requested by an information processor of a sender and transferring continuous media data such as voice data and moving picture data between two information processors connected via a plurality of information processors as taught by Takeuchi.

a time of day at which as in real time *is implicitly taught by Carmel as stream in real time, col. 2, line 60 to col. 3, line 5)*.

Carmel, Takeuchi do not state the term “a time of day”.

Miller teaches this limitation in Fig. 7 and Table in column 7.

It would have been obvious to one of ordinary skill of the art having the teaching of Carmel, Takeuchi and Miller at the time the invention was made to modify the system of Carmel, Takeuchi to include the limitations as taught by Miller. One of ordinary skill in the art would be motivated to make this combination in order to schedule for data transmission from the content sources to the replicated servers in view of Miller (col. 6, lines 8-34), as doing so would give the added benefit of enabling the content to be distributed by many content providers so that the distributions do not overwhelm network bandwidth, and

multicast addresses to be allocated without conflict among the various content sources as taught by Miller (col. 1, lines 20-49).

As per claim 2, Carmel teaches a computer-readable storage medium encoded with a computer program which, when loaded into a processor, implements the method *(i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58)* for synchronously transferring an amount of local data form a local data storage medium to a remote data storage medium via a communications link having an available bandwidth, the local data storage medium associated with a local computer system having a local processor sequentially responsive to a plurality of local computer programs, the remote data storage medium associated with a remote computer system non-redundant of the local computer system and having a remote processor, the method comprising:

evaluating local user conditions associated with transfer of the local data*(i.e. the transmitting computer and the clients monitor the uploading and downloading of data to and from the server, respectively, in order to determine*

the amount of time required to convey each slice and to verify that the slices are conveyed at a sufficient rate. When the data stream comprises multimedia data, the data rate should be generally equal to or faster than the rate at which the data are generated at the transmitting computer, col. 2, lines 51-59);

based on the currently available bandwidth and the amount of local data, approximating a transfer time for the local data*(i.e. the transmitting computer opens a plurality of links between the transmitting computer and the server, each link characterized by a respective data rate, and transmits different ones of the sequence of files over different ones of the plurality of links. Most preferably, the transmitting computer opens the plurality of links such that the data rates of the links taken together are sufficient to upload the sequence at the upload rate generally equal to the data rate. Further preferably, the transmitting computer monitors the data rates of the links and opens a new link in place of one of the links whose data rate is lower than a predetermined level, col. 5, lines 3-14)*;

determining a status of the local processor, wherein the determining step includes determining if the local processor has reduced activity or is idle*(i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a*

live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58);

based on the approximated transfer time, the local user conditions, and the status of the local processor, selecting a time of day at which to transmit the local data to the remote data storage medium*(i.e. Computer 34 monitors the time codes as file 40 is transmitted, and clients 30 similarly monitor the time codes as the file is received, in order to ensure that the transmission or reception is "keeping up" with the input of the data to the computer. In the event that a lag is detected, steps are taken to increase the data transmission or reception rate, as described further hereinbelow. For example, as shown in FIG. 3A, time intervals T1, T2, T3, etc., are not all equal, but rather are adjusted by computer 34 in response to the transmission rate. Alternatively or additionally, the compression level of the data is varied, as is likewise described below, so as to adjust the data streaming rate to the available bandwidth over one or more channels between computer 34 and server 36, and/or between server 36 and client 30, col. 7, lines 35-49)*; and

automatically arranging transfer of the local data to the remote data storage medium via the communications link at the selected time of day*(i.e. Computer 34 monitors the time codes as file 40 is transmitted, and clients 30 similarly monitor the time codes as the file is received, in order to ensure that the transmission or reception is "keeping up" with the input of the data to the computer. In the event that a lag is detected, steps are taken to increase the data transmission or reception rate, as described further hereinbelow. For example, as*

shown in FIG. 3A, time intervals T.sub.1, T.sub.2, T.sub.3, etc., are not all equal, but rather are adjusted by computer 34 in response to the transmission rate. Alternatively or additionally, the compression level of the data is varied, as is likewise described below, so as to adjust the data streaming rate to the available bandwidth over one or more channels between computer 34 and server 36, and/or between server 36 and client 30, col. 7, lines 35-49).

Carmel implicitly teaches evaluating local user conditions associated with transfer of the local data as The client or the server monitors the data transfer rate of a data link opened therebetween and selects the level that is appropriate to the link bandwidth *(i.e. In other preferred embodiments, the slices are provided by the server at multiple resolution or quality levels. Each such level has a different degree of data compression, and thus corresponds to a different data bandwidth requirement. The client or the server monitors the data transfer rate of a data link opened therebetween and selects the level that is appropriate to the link bandwidth. If the monitored data transfer rate changes during transmission, the quality level is preferably reselected accordingly, col. 3, lines 5-13).*

Carmel does not state the term “evaluating local user conditions associated with transfer of the local data”.

Takeuchi teaches this limitation *(i.e. In each node, there is an application (401) for setting various parameters to be used to send and receive continuous media data and allocate resources, col. 6, lines 25-28)*.

It would have been obvious to one of ordinary skill of the art having the teaching of Carmel and Takeuchi at the time the invention was made to modify

the system of Carmel to include the limitations as taught by Takeuchi. One of ordinary skill in the art would be motivated to make this combination in order to set various parameters to be used to send and receive continuous media data in view of Takeuchi, as doing so would give the added benefit of achieving a data communication method for satisfying a transfer rate requested by an information processor of a sender and transferring continuous media data such as voice data and moving picture data between two information processors connected via a plurality of information processors as taught by Takeuchi.

Carmel implicitly teaches a time of day at which as in real time *(i.e. stream in real time, col. 2, line 60 to col. 3, line 5)*.

Carmel, Takeuchi do not state the term “a time of day”.

Miller teaches this limitation in Fig. 7 and Table in column 7.

It would have been obvious to one of ordinary skill of the art having the teaching of Carmel, Takeuchi and Miller at the time the invention was made to modify the system of Carmel, Takeuchi to include the limitations as taught by Miller. One of ordinary skill in the art would be motivated to make this combination in order to schedule for data transmission from the content sources to the replicated servers in view of Miller (col. 6, lines 8-34), as doing so would give the added benefit of enabling the content to be distributed by many content providers so that the distributions do not overwhelm network bandwidth, and having multicast addresses to be allocated without conflict among the various content sources as taught by Miller (col. 1, lines 20-49).

As per claim 3, Carmel teaches the computer-readable storage medium according to claim 2, wherein the computer program comprises one of the plurality of local computer-program, and the processor comprise the local processor *(See Figs. 2, 4)*.

As per claim 4, Carmel teaches the computer-readable storage medium according to claim 2, wherein the processor comprises the remote processor *(See Figs. 2, 4)*.

As per claim 5, Carmel teaches the computer-implemeted method according to claim 1, further comprising: automatically transmitting the local data to the remote data storage medium at the selected time *(i.e. Computer 34 monitors the time codes as file 40 is transmitted, and clients 30 similarly monitor the time codes as the file is received, in order to ensure that the transmission or reception is "keeping up" with the input of the data to the computer. In the event that a lag is detected, steps are taken to increase the data transmission or reception rate, as described further hereinbelow. For example, as shown in FIG. 3A, time intervals T.sub.1, T.sub.2, T.sub.3, etc., are not all equal, but rather are adjusted by computer 34 in response to the transmission rate. Alternatively or additionally, the compression level of the data is varied, as is likewise described below, so as to adjust the data streaming rate to the available bandwidth over one or more channels between computer 34 and server 36, and/or between server 36 and client 30, col. 7, lines 35-49)*.

As per claim 6, Carmel teaches the computer-implemented method according to claim 1, further comprising: automatically arranging for interruption of transfer of the local data bases on the status of the local processor *(i.e. Computer 34 monitors the time codes as file 40 is transmitted, and clients 30 similarly monitor the time codes as the file is received, in order to ensure that the transmission or reception is "keeping up" with the input of the data to the computer. In the event that a lag is detected, steps are taken to increase the data transmission or reception rate, as described further hereinbelow. For example, as shown in FIG. 3A, time intervals T.sub.1, T.sub.2, T.sub.3, etc., are not all equal, but rather are adjusted by computer 34 in response to the transmission rate. Alternatively or additionally, the compression level of the data is varied, as is likewise described below, so as to adjust the data streaming rate to the available bandwidth over one or more channels between computer 34 and server 36, and/or between server 36 and client 30, col. 7, lines 35-49)*.

As per claim 7, Carmel teaches the computer-implemented method according to claim 6, further comprising: automatically interrupting transfer of the local data based on the status of the local processor *(i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is*

retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58).

As per claim 8, Carmel teaches the computer-implemented method according to claim 6, wherein the status of the local processor is inferred from one of: status of a display device, a status of a memory; a configured processor utilization; and a time since a last interactive use of the local computer system *(i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58)*.

As per claim 10, Carmel teaches the computer-implemented method according to claim 6, further comprising: after automatically arranging for interruption of transfer of the local data, automatically arranging for resumption of transfer of the local data based on the status of the local processor *(i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be*

received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58).

As per claim 11, Carmel teaches the computer-implemented method according to claim 10, further comprising: automatically resuming transfer of the local data based on the status of the local processor *(i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58)*.

As per claim 12, Carmel teaches the computer-implemented method according to claim 1, wherein the local user conditions comprise one of: a location of the local data; a preferred transfer time; a file extension associated with the local data; and a status of the communication link *(i.e. the rate of data*

being transmitted over each of links 60, 62, 64, col. 9, lines 31-48; link 60 will have timed out, col. 12, lines 48-59).

As per claim 13, Carmel teaches the computer-implemented method according to claim 1, wherein the remote processor and the local processor are under independent control *(See Figs. 2, 4)*.

As per claim 24, Carmel teaches the computer-implemented method according to claim 1, wherein the status is determined by direct monitoring of the local processor *(i.e. Preferably, computer 34 monitors the rate of data being transmitted over each of links 60, 62, 64, etc., and allocates files 42, 44, 46, 48, etc., according to the data rates. The sizes of the files may be varied by adjusting slice durations T1, T2, T3, etc., and a relatively greater volume of data may be transmitted through links exhibiting relatively greater data rates, col. 9, lines 31-49)*.

As per claim 25, Carmel teaches the computer-implemented method according to claim 1, wherein the status is inferred by monitoring a status of other programs associated with the local computer-system *(i.e. If link 60 has not completed transmission of file 42 by the time the sixth file is ready for transmission, link 60 will have timed out, and a time-out indication will be received from step 88 (FIG. 5). In this case, link 60 is terminated and is replaced by link 70. Preferably, a "socket" opened for link 60 by a WINSOCK program*

running on computer 34 is simply reinitialized to open link 70. Optionally, file 42 is retransmitted over link 70 or over one of the other links, although in the case of a live broadcast transmission, it may be preferable simply to drop the file rather than send it after such a long delay, col. 12, lines 48-58).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carmel et al. (US Patent No. 6,389,473), in view of Miller et al. (US Patent No. 5,920,701), and Takeuchi et al. (US Patent No. 6,321,260), as applied to claims above, and further in view of Roberts et al. (US Patent No. 6,920,110).

As per claim 9, Carmel implicitly teaches the status of the display device comprises activation of a screen-saver as link 60 will have timed out, col. 12, lines 48-59.

Miller implicitly teaches the status of the display device comprises activation of a screen-saver as if the transmission was unsuccessful, col. 3, lines 1-23.

Carmel, Miller, Takeuchi does not clearly state the term “screen saver”.

Roberts teaches this limitation *(i.e. The relatively low level of actual network bandwidth utilization shown from T.sub.5 through T.sub.8 (FIG. 4) is sometimes referred to as "network **idle**." This concept differs from "machine **idle**," which occurs when a PC user is not currently using the keyboard or mouse. If the machine remains **idle** for a period of time, a screen saver may be invoked, col. 7, line 59 to col. 8, line 12).*

It would have been obvious to one of ordinary skill of the art having the teaching of Carmel, Miller, Takeuchi, Roberts at the time the invention was made to modify the system of Carmel, Miller, Takeuchi to include the limitations as taught by Roberts. One of ordinary skill in the art would be motivated to make this combination in order to the transfer of a set of data over a network at a time when the network utilization is relatively low in view of Roberts (col. 7, line 59 to col. 8, line 12), as doing so would give the added benefit of being equally applicable to uploads from the client to the server or other communication of data between computers as taught by Roberts (col. 7, line 59 to col. 8, line 12).

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carmel et al. (US Patent No. 6,389,473), in view of Miller et al. (US Patent No. 5,920,701), and Takeuchi et al. (US Patent No. 6,321,260), as applied to claims above, and further in view of Knox et al. (US Pub No. 20020083124).

As per claim 26, Miller implicitly teaches the file extension as criterion, col. 6, lines 52-59 *(i.e. The priority level for each content source 12, 14 is assigned based on some criterion. For example, certain content sources 12, 14 may be charged a greater fee by the scheduler 10, in return for being accorded a higher priority in the distribution of content data over the network. These priorities can be stored in memory 32 in the scheduler 10 to be factored into the calculation of transmission parameters for each content source 12, 14 transmission, col. 6, lines 52-59)*.

Carmel, Miller, Takeuchi does not state the term “file extension”.

Knox teaches the computer-implemented method according to claim 1, wherein the local user conditions comprise file extensions of the local data *(i.e. In this step, the process 40 can execute a computer process that is capable of analyzing the contents of the uploaded data file. For example, the file structure of the uploaded data file may be known to the process and may be identified to that process by the file extension associate with the uploaded file. For example, a *.rm file indicates a file format compatible with the Real Media file structure. The process 40 can include logic that understands the file structure of the *.rm format. The file structure typically includes information regarding the title of the file, the size of the file, an associated codec, bit rate and other characteristics of that file, [0043]).*

It would have been obvious to one of ordinary skill of the art having the teaching of Carmel, Miller, Takeuchi, Knox at the time the invention was made to modify the system of Carmel, Miller, Takeuchi to include the limitations as taught by Knox. One of ordinary skill in the art would be motivated to make this combination in order to analyze the contents of the uploaded data file in view of Knox ([0043]), as doing so would give the added benefit of allowing the user to set or adjust meta-data characteristics of the uploaded media asset, and a distribution process is capable of replicating the media asset and distributing the replicated versions of that asset across the data network as taught by Knox (Abstract).

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carmel et al. (US Patent No. 6,389,473), in view of Miller et al. (US Patent No. 5,920,701), and Takeuchi et al. (US Patent No. 6,321,260), and Knox et al. (US Pub No. 20020083124), as applied to claims above, and further in view of Quinet et al. (US Pub No. 20050240940).

As per claim 27, Miller implicitly teaches local data having a first file extension is transferred immediately and wherein local data having a second file extension is transferred at a later time of day as The priority level for each content source 12, 14 is assigned based on some criterion, col. 6, lines 52-59 *(i.e. The priority level for each content source 12, 14 is assigned based on some criterion. For example, certain content sources 12, 14 may be charged a greater fee by the scheduler 10, in return for being accorded a higher priority in the distribution of content data over the network. These priorities can be stored in memory 32 in the scheduler 10 to be factored into the calculation of transmission parameters for each content source 12, 14 transmission, col. 6, lines 52-59)*.

Carmel, Miller, Takeuchi, Knox does not clearly state this limitation.

Quinet teaches the computer-implemented method according to claim 26, wherein local data having a first file extension is transferred immediately and wherein local data having a second file extension is transferred at a later time of day *(i.e. [0065] The object does not have a priority yet, but the file extension looks like HTML (".HTML",".HTM") or XML (".XML") or looks like a directory index (ends"/"). Such a priority assignment ensures that a HTML page requested from the bookmarks or typed in directly will be requested with a high priority)*.

It would have been obvious to one of ordinary skill of the art having the teaching of Carmel, Miller, Takeuchi, Knox, Quinet at the time the invention was made to modify the system of Carmel, Miller, Takeuchi, Knox to include the limitations as taught by Quinet. One of ordinary skill in the art would be motivated to make this combination in order to assign an initial priority to an requested object in view of Quinet (Abstract), as doing so would give the added benefit of controlling in a communications network an object transfer from a first network component via the intermediate component to a second network component as taught by Quinet (Abstract).

Response to Arguments

Applicant's arguments filed 05/11/08 have been fully considered but they are not persuasive.

1. Prior art read on "The method including evaluation local user conditions associated with transfer of the local data, based on the currently available bandwidth and the amount of local data, approximating a transfer time of the local data, determining a status of the local processor, wherein the determining step includes determining if the local processor has reduced activity or is idle, based on the approximated transfer time, the local user conditions, and the status of the local processor, selecting a time of day at which to transmit the local data to the remote data storage medium, and automatically arranging transfer of the local data to the

remote data storage medium via the communication link at the selected time of day" as follows:

The step of **evaluation user condition** is taught by Carmel as The client or the server monitors the data transfer rate of a data link opened therebetween and selects the level that is appropriate to the link bandwidth, col. 3, lines 5-13.

The step of **evaluation user condition** is taught by Takeuchi as In each node, there is an application (401) for setting various parameters to be used to send and receive continuous media data and allocate resources, col. 6, lines 25-28 (NEW GROUND).

The step of **evaluation user condition** is taught by Miller as if the pathway bandwidth is 1.544 Mbps, and 60% of the pathway bandwidth is available for data transfer between 10:00 PM and 6:00 AM, the scheduler 10 determines that the actual bandwidth for data content transfers from the content sources 12, 14 during this interval is 926.4 Kbps. The actual bandwidth can be stored in memory 32 for later retrieval, col. 8, lines 50-63 (NEW GROUND).

a time of day is implicitly taught by Carmel as in real time *(i.e. stream in real time, col. 2, line 60 to col. 3, line 5)*.

It should be noted that the term real time of Carmel is interpreted as the current time of day.

Miller teaches **a time of day** in Fig. 7 and Table in column 7 (New Ground)

selecting a time of day at which to transmit the local data to the remote data storage medium, and automatically arranging transfer of the local data to the remote data storage medium via the communication link at the selected time of day is taught by Miller as re-determine the distribution schedule for that content source, col. 2, lines 38-55, Fig. 7 and Table in column 7 (NEW GROUND).

selecting a time of day at which to transmit the local data to the remote data storage medium, and automatically arranging transfer of the local data to the remote data storage medium via the communication link at the selected time of day is taught by Miller as The transmission of data (e.g., a computer file) from one or more content sources over a network to one or more replicated servers is scheduled and performed according to the schedule, Abstract, Fig. 7 and Table in column 7 (NEW GROUND).

2. **Prior art read on "File extension associated with the data, times, or events, which would trigger transfer of the data or any combination thereof, … the user may request that user data having file extension such as .DOC or JPG be transferred immediately, while user data have file extension such as MPG or RM be transferred overnight.**

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *the user may request that user data having file extension such as*

.DOC or JPG be transferred immediately, while user data have file extension such as MPG or RM be transferred overnight) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

3. Carmel teaches T1, T2, T3 which are a time of day

a time of day at is understood as in real time *(i.e. stream in real time, col. 2, line 60 to col. 3, line 5)*.

It should be noted that the term real time of Carmel is interpreted as the current time of day.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James K. Trujillo, can be reached at (571) 272-3677. The fax number to this Art Unit is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Miranda Le/
Primary Examiner, Art Unit 2159